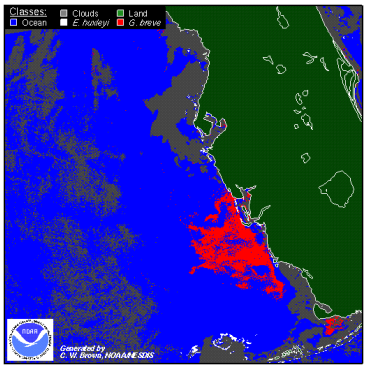
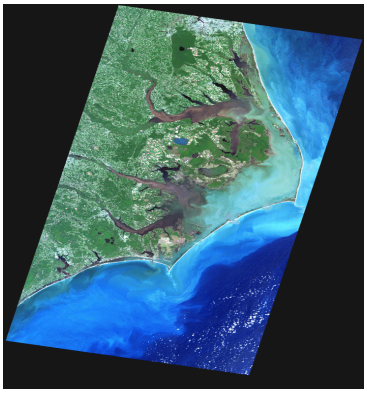
National Environmental Satellite, Data, and Information Service
Coastal Remote Sensing



Gymnodinium breve "Red Tide" off Southwestern Florida



Remote Sensing Imagery of Nutrient Loading into Pamlico Sound after Hurricane Floyd

The National Requirement: The coastal ocean constituency of the Nation has many requirements for environmental data and information services not currently supported by existing agency systems. Coastal observations of increasingly higher spatial and temporal resolution are required to address current and emerging coastal management concerns relating to population density, natural resources, pollution, erosion, flooding, and hazards.

NOAA's Response: To meet the needs of coastal ocean users, NESDIS is establishing a Coastal Remote Sensing program to foster the development and deployment of technologies to meet long-standing requirements for observations of coastal zones, hydrological phenomena, and certain atmospheric processes. The Coastal Remote Sensing program seeks to significantly improve regional satellite-based environmental observations and analyses through high-resolution, frequent viewing of environmental events unobtainable from NOAA polar-orbiting, geostationary, or existing non-NOAA satellites.

Financing: The FY 2003 budget request includes $6.0 million to develop and deploy a prototype high-resolution imaging sensor, to meet the long-standing needs of the coastal ocean constituency and NOAA requirements.

In FY 2003, this program will support collaborative efforts with other agencies to develop conceptual design and capabilities of a new coastal remote sensing instrument that will continuously monitor coastal ocean areas for harmful algae blooms, coral reef deterioration, pollution changes, fisheries management, and navigation. This instrument will also provide continuous, high resolution monitoring in unprecedented detail of terrestrial features such as vegetation changes, flooding, wild fires, volcanic eruptions, and ash cloud transport.

This program will also support joint scientific research required for the development of real-time products in support of coastal health and management. The overall outcome of this program will be significant economic benefits to the tourist industry, hotel and motel suppliers, commercial fisheries, and local governments.